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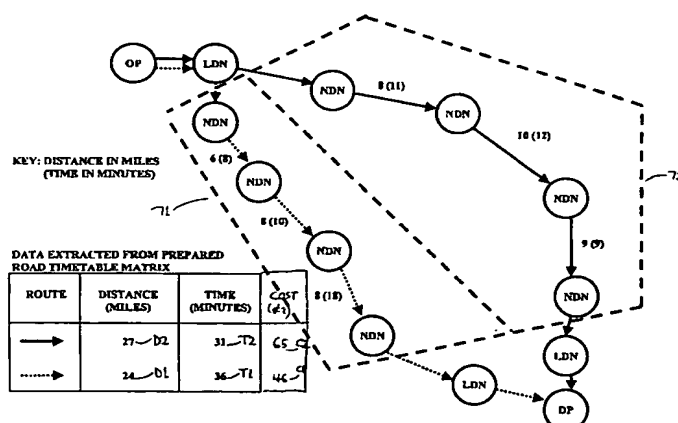
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(88) Date of publication of the international search report:
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHOD FOR PROVIDING TRAFFIC INFORMATION



(57) Abstract: A system and method for providing traffic information is disclosed. The method comprises, for each segment of a route between an origin point and a destination point, performing a time-dependent journey planning calculation, based on a time during which a vehicle is predicted to be travelling through the segment, to produce a segment result; forming at least one route result, the at least one route result being formed based on a plurality of the segment results; storing the at least one route result in a digital storage means; and accessing the rapid access means for use in responding to a user request for traffic information for a journey between the origin point and the destination point. Furthermore the method comprises determining, with reference to a first network of geographical boundaries and a second network of digital map nodes, a recommended most economic route between an origin point and a destination point; and conveying the recommended most economic route to a user.

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INTERNATIONAL SEARCH REPORT

Inter Application No

PCT/GB 03/03702

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G08G1/0968 G08G1/01 G08G1/123 G01C21/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G08G G01C G07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 100 37 827 A (DAIMLER CHRYSLER AG) 14 February 2002 (2002-02-14) column 1, line 66 - column 2, line 10 column 3, lines 35-39 column 4, lines 44-65 column 5, lines 1-7 figure 2	1-9, 11, 12, 39-48, 50, 51, 78-80
X	DE 199 33 639 A (BOSCH GMBH ROBERT) 18 January 2001 (2001-01-18) column 2, lines 57-67 column 3, lines 31-40 ----- -/-- -----	1-5, 39-44

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

31 March 2004

Date of mailing of the international search report

22.04.04

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INTERNATIONAL SEARCH REPORT

Intern Application No
PCT/GB 03/03702

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/40606 A (PHILIPS ELECTRONICS NV ; PHILIPS NORDEN AB (SE)) 30 October 1997 (1997-10-30) page 6, lines 23-25 page 7, lines 5-8 page 10, line 7 - page 11, line 27	13,14, 16-22, 52,53, 55-61
X	EP 0 838 663 A (NAVIGATION TECH CORP) 29 April 1998 (1998-04-29) page 2, lines 27-31 page 3, lines 1-9 page 6, line 55 - page 7, line 19 page 7, columns 52-54	13-15, 52-54
X	EP 0 372 840 A (SUMITOMO ELECTRIC INDUSTRIES) 13 June 1990 (1990-06-13) column 8, lines 27-35 column 9, lines 14-22 column 15, lines 22-26 column 16, lines 10-19 figure 7b	13,14, 16-20, 52,53, 55-59
X	EP 0 936 590 A (DAIMLER CHRYSLER AG) 18 August 1999 (1999-08-18) column 1, lines 5-6 column 2, line 41 - column 3, line 2	1,23,25, 31,34, 40,62, 64,70,73
Y	column 3, lines 41-45	24-27, 31,33, 34,36, 37, 63-66, 70,72-76
Y	US 5 539 645 A (MANDHYAN INDUR B ET AL) 23 July 1996 (1996-07-23) column 1, lines 27-35 column 2, lines 52-57 column 4, lines 17-55 column 5, lines 33-39 column 6, line 66 - column 7, line 7 column 8, lines 61-66	24-27, 31,33, 34,36, 37, 63-66, 70,72-76

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INTERNATIONAL SEARCH REPORT

Internat Application No
PCT/GB 03/03702

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 182 555 A (SUMNER ROY L) 26 January 1993 (1993-01-26) column 3, lines 54-56 column 5, lines 18-20 column 10, lines 10-17 column 11, lines 46-52 -----</p>	32,71

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 03/03702

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

As a result of the prior review under R. 40.2(e) PCT,
no additional fees are to be refunded.

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/ GB 03/03702

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12,39-51,78-80

Method to provide accurate route information considering the time and day of the week

2. claims: 13-22,52-61

Method of structuring map data, using transportation links and geographical indications

3. claims: 23-38,62-77

Method to provide traffic information using real time data obtained by probe vehicles (FCD)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB 03/03702

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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